S. HRG. 99-154

NTIA AUTHORIZATION AND OVERSIGHT

HEARING

BEFORE THE

SUBCOMMITTEE ON COMMUNICATIONS

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

UNITED STATES SENATE

NINETY-NINTH CONGRESS

FIRST SESSION

ON

AUTHORIZATION AND OVERSIGHT OF THE NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

MAY 1, 1985

Printed for the use of the
Committee on Commerce, Science, and Transportation

U.S. GOVERNMENT PRINTING OFFICE

50-756 O WASHINGTON : 1985

S261-45.

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NTIA AUTHORIZATION AND OVERSIGHT

WEDNESDAY, MAY 1, 1985

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9 a.m. in room SR-485, Russell Senate Office Building, Hon. Barry Goldwater (chairman of the subcommittee) presiding.

Staff members assigned to this hearing: Dale Brown, professional staff member and Tom Cohen, minority staff counsel.

OPENING STATEMENT BY SENATOR GOLDWATER

Senator GOLDWATER. The meeting will come to order.

I am glad to welcome you here this morning. We are convening the Subcommittee on Communications, which convenes a hearing on the authorization of the National Telecommunications and Information Administration. It is my pleasure to be able to extend a warm welcome to David Markey, whose title is Assistant Secretary for Communications and Information.

Now, before we get started I have two issues I would like to mention. First, I have some concern that the administration's proposed budget will result in cutbacks in your international office. NTIA has been doing good work in this area and I do not want to see these efforts slowed down.

I also want to express my continued deep concern over the administration's proposed elimination of the public telecommunications facilities program, which is administered by NTIA. As I stated in 1982 during a similar hearing, the activities of this program have brought public broadcasting service to States like Arizona, South Dakota, and Alaska, where no service could exist without it.

My appreciation for the benefits of this program certainly has not changed, and I intend to try to ensure that the very worthwhile efforts of this program continue as long as there is a need for such services.

As we have in the past, we intend to include public telecommunications facilities program funds in the Corporation for Public Broadcasting authorization bill, rather than in the NTIA bill. However, I want to discuss that program here today.

On that note, I will turn the floor over to you, Dave. You may proceed as you wish.

STATEMENT OF DAVID J. MARKEY, ASSISTANT SECRETARY FOR COMMUNICATIONS AND INFORMATION, NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION, ACCOMPANIED BY DENNIS CONNORS

Mr. MARKEY. Thank you, Mr. Chairman.

Let me just very briefly give you a little bit of the statement to set the scene here this morning. We have approximately five basic programs at NTIA, and let me describe them for you. There are: Our policy development and presentation activities; our Federal spectrum management; our communications and standards research; international affairs; and, as you point out, administering the Public Telecommunications Facilities Program, or PTFP.

Prior to 1982, one thing I want to emphasize is that in this administration NTIA focused chiefly on domestic communications matters. We were major participants in the considerations in the Senate of S. 898, as you might recall.

Over the past few years, however, we have been increasingly involved in international communications work, as you pointed out. We were extensively involved, for example, in developing recommendations for President Reagan regarding new international satellite systems separate from INTELSAT. This past February we issued a comprehensive white paper on this topic, together with the 14 other executive branch agencies which are members of the Senior Interagency Group or SIG.

In related areas, we have been working with the Federal Communications Commission, the State Department, and others to develop new procedures governing Comsat's participation as the U.S. Signatory to INTELSAT. We have made recommendations to the FCC regarding reforms in the present international communication facilities planning process, and we recently also asked the Commission to change its rules to allow companies and users in addition to Comsat to have direct or competitive access to INTELSAT.

Given the importance now accorded communications trade matters, some of our experts have also been working with Commerce's International Trade Administration and the Office of the U.S. Trade Representative in connection with efforts to expand U.S. marketing opportunities in Japan. We have a proposed protocol pending with the Chinese Ministry of Post and Telecommunications and we in the last 2 weeks have sent them a new version that we hope will be signed later this year.

We have also worked on developing U.S. recommendations for the International Telecommunication Union's Maitland Commission, which is advancing various proposals to promote communications development throughout the Third World. We are also working very closely with the U.S. Telecommunications Training Institute, which I think is a very worthwhile and important initiative on behalf of this country.

Those are the major items that I wanted to touch on. I will be happy to submit the rest of my statement for the record. But I wanted to emphasize our international work. As you probably also know, and I know your staff knows, we are involved in looking at the domestic telecommunications scene with a very, we think, important study to analyze what has been happening in the telephone

industry over the last 4 or 5 years, including what has happened as a result of the breakup.

And I think some of that analysis will be certainly finished this summer. I think it will help us to determine where we want to go from here. We are trying to look at it from the user's standpoint and see whether we should be doing things that will make it easier for people to use the system.

And so with that I think, Mr. Chairman, I will be happy to respond to your questions.

Senator GOLDWATER. Thank you very much. I do have some questions.

In your statement, you said you made recommendations to the FCC regarding reforms in the present international communications facilities planning process. What has been the reaction of the FCC to those suggestions?

Mr. MARKEY. The FCC has been rather receptive to changing that process. Right now, as you may know, what we do is we have a balanced loading between cable and between satellite. Each gets 50 percent of the traffic. Our concern is that this does not lead to any consideration of efficiencies.

If cable becomes more efficient than satellite, then the marketplace should be able to move toward cable. If satellite is more efficient than cable, then people should be able to move more toward satellite. So we think it is necessary in the long run to look at that balanced loading to see if there isn't some way to introduce more marketplace concepts in the loading principles.

And the Commission has agreed with us. As a matter of fact, I guess it was within the last 2 weeks that they have come down with a proposed rule that would move in that direction.

The one thing we have to be concerned with here is that we are dealing with other countries and we cannot do it alone. We have to do it in consideration of their interests as well. But we think a continuing pressure to change that facilities loading, getting rid of the balanced loading kind of arrangement and using more marketplace forces, would be in the interest of our users.

Senator GOLDWATER. I want to ask the communications staff to get copies of these recommendations, and an indication of what the FCC's response has been.

Also you say that: "We worked on developing U.S. recommendations for the International Telecommunication Union's Maitland Commission." Would you have a copy of the recommendations you made to them?

Mr. MARKEY. Yes, sir. We will be happy to provide that to the committee. I do not think I have it with me, but I would be more than pleased to provide it.[1]

Senator GOLDWATER. What was the commission's response?

Mr. MARKEY. Well, the Maitland Commission reported I guess it was, earlier this year, in January, and made a number of recommendations as to how the developing countries and others should support the development of the communications facilities in the lesser developed countries. Obviously, one of the big concerns with

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[1] See p. 14.

that, with some of those recommendations, is how do we pay for all of that development?

And now we are looking at their recommendations and this summer we will meet with the other members of the ITU to determine where we go from here. But the recommendations have been made.

I think that some of the thoughts that we had and we presented to our representative at those meetings, who was Mr. Ellinghaus, formerly of AT&T, had some effect on shaping the final version, but obviously we do not know yet where we are going to go with those recommendations.

We think it is in the interest of the United States to promote development in most of the lesser developed countries because it helps to promote trade, it would give us more opportunities to market our equipment and our services. So if there is some way we can do it and get the private sector involved in it, we would like to do that.

But we also want to make sure that it does not impact adversely on programs that we are already involved in, such as the U.S. Telecommunications Training Institute, which I think is moving along very well.

Senator GOLDWATER. Well, I think this is a very, very important function. I can remember a good many years ago when a group of amateur radio operators made an attempt to solve the Third World communications problem and fell flat on their faces.

It can be done, and I notice in the trade journals that more and more of these countries are installing rather exotic and expensive equipment.

I have a number of questions here that have been proposed by Senator Hollings, who cannot be here, and I will give those to you and you can answer for the records.

You never have enough money, do you?

Mr. MARKEY. Well, Mr. Chairman, I guess in this day and age, with the budget crunch, nobody feels like they have enough money. But obviously, we want to be supportive of the President's budget. We want to try to do what we can to help reduce the deficit.

I am not here asking for more money. I want to make that clear. Obviously, NTIA has done its share in reducing our budget compared with the past administration. We were, I think, at a level of $16 million-plus in 1980, when this administration came into office, and now we are down at about $13.2 million for the coming year.

So I am not complaining about that. I think some of that was probably necessary. At the moment, the overall problem is the budget. And I recall very strongly a letter that you sent around in 1981, I think it was, when I was working here in the Senate, describing the situation and asking people to make sacrifices on their particular special interest.

And we want to be part of the solution to that, and so I am not here asking for more money. But obviously, it is getting very tight for us. I do not think we can cut much more than we have cut.

Senator GOLDWATER. How has it affected your staff? Have you had to reduce your staff?

Mr. MARKEY. At this stage, since I came to NTIA I have not had to reduce the staff. My predecessor reduced the staff considerably, and I think some of that was probably worthwhile and reasonable.

But the new budget that we have to work with will make it very tight. I hope we can get through 1986 without reducing any staff, and we are trying to do everything we can to make sure that we have enough resources to do that. But it will certainly mean that we cannot do any more than we are doing now, I would say that.

But we are going to do everything we can to make sure that we do not have to reduce our staff, because I for the most part, I think they are very good and professional people. They are career people, but I think they are doing a heck of a fine job. They help to make me look good every now and then.

Senator GOLDWATER. Well, my staff recommendation—and I am inclined to concur with it—would increase the administration's request by $500,000 for 1986 and 1987. These funds are to be targeted for NTIA's international program. By adding $500,000 to the administration's requested budget. This would allow the international division to continue existing activities, as well as provide the flexibility to increase activity where necessary.

If we are going to have these operations, I think there comes a time when cutting them becomes rather foolish. And I have several other activities in mind that have never had enough money, but the President wants to cut them. So that is about where you and I stand. We will see what we can do.

Now, you have been able to supplement the international office with carryover funds, maintaining a level of approximately a million dollars over the past 4 years. I understand that the funds available for carryover are now depleted.

Mr. MARKEY. They are getting pretty close to being depleted. We are trying to do our best to make sure that we have enough that we can carry over, because in that area the President's budget is a little less than a million dollars, as I recall.

So unless we can find some way to support those people, we would have a difficult time. But we are going to do everything we can to see if we cannot dredge up that money somewhere within the agency, and we are looking at that right now and we are working on it.

But yes, sir, our carryover balance is rapidly decreasing, and I suspect shortly into the next fiscal year there will not be very much left.

Senator GOLDWATER. In view of that, will you have any room to increase some of your international activities if the need arises in the next 2 years?

Mr. MARKEY. Sir, I would doubt very much that we would have very much room to increase those activities. I might say that what we have worked out on occasion—and I do not know whether we could do this again—is that on occasion we have supported the trade people and we have gotten them to pay some of the expenses for our people who have helped them, for instance in Japan in those trade negotiations. They have helped us out, since their budget is considerably larger than ours.

But with respect to our own resources, I think it would be very difficult for us to increase any of our international activities over the next year or so.

Senator GOLDWATER. Well, in regard to that, is it true that more than 70 percent of your budget now goes to engineering and radio frequency management?

Mr. MARKEY. Yes, sir, that is correct.

Senator GOLDWATER. Are you able to use the remaining 30 percent to adequately handle the rest of your budget requirements?

Mr. MARKEY. I think we can use—the 30 percent right now is enough to keep us going, along with the carryover, through the next fiscal year. At least we're going to try to see if we can find the money to do that.

And as I indicated earlier, we are going to make every effort to keep within the President's figures. We know this is a tough year for a lot of people and we want to be as supportive as we can of the effort to keep the budget down to a reasonable level, although I suspect our little contribution is not going to make a whole lot of difference.

Senator GOLDWATER. Along those lines, I am concerned about the budget for the facilities program and I would like some information regarding certain applications for these funds in areas that I find important.

For example, could you tell me how many applications you have to extend coverage to areas that are not covered?

Mr. MARKEY. Senator, I have got a few figures here. Would you mind if I ask the fellow who runs our program to join me here? Dennis, why do you not come up here.

What I do have is that we have had about 380 grant applications for this year. Of those figures, I think it is $30 million that has been requested in the Priority One area, which is the area of extending coverage, and about $27 million in the area of what we would call "critical needs" with respect to replacement of equipment.

If you needed some additional figures outside of those, Dennis I know works with this program and he has done a heck of a fine job. He would be happy to try to supply whatever figures you may need there.

Senator GOLDWATER. Well then, I wish he would supply the staff with the answer to how many applications you have for extended areas and how many applications you have to replace equipment.

Mr. CONNORS. There are about 110 applications now pending.

Senator GOLDWATER. How many?

Mr. CONNOPS. 110 applications pending for the Priority One, which is the extension of service into uncovered areas. It breaks out into TV and radio. There are about 62 radio applications and the rest of about 50 television applications to extend service.

In terms of replacement of equipment, priority II involves urgent replacement, where if we do not replace equipment they may go off the air. That is our priority II and there are 27 applications—$27 million and 89 applications—pending before the agency now. So 89 applications.

Senator GOLDWATER. Also, I would like to know, how many rollover applications do you have from previous years? And when you

give us those figures. I wish you would give us a list, a geographic identification of where these stations or equipment might be needed.

Mr. CONNORS. All right. I would like to provide that for the record,[1] in terms of the list of the geographic distribution.

Senator GOLDWATER. Yes; you may submit it for the record.

Relative to joint international responsibilities, the agreement between Secretaries Baldrige and Shultz regarding the State and Commerce responsibilities in international communications was signed in November of 1984. I think it is about ready to expire. Do you think that the arrangement whereby you cochair the senior interagency group should be made permanent?

Mr. MARKEY. Yes, sir. I think that—you know, we have had certain problems with the State Department and we have had these battles back and forth.

Senator GOLDWATER. Who has not.

Mr. MARKEY. Yes, I guess that is true. And I think we came to the realization that there was more than enough work there for everybody if we could pretty well divide it up into areas that made sense with respect to the two Departments. And Under Secretary Schneider and I got together and we came up with the agreement, and I think it pretty well delineates the responsibilities between the two Departments.

So I think it has been working rather well. I think Mr. Schneider thinks it has been working well. We do not see any need at this stage to do very much to upset it. The State Department in general has the responsibility of dealing with other governments and presenting the policy development that we helped to come up with in international forums. We generally have the responsibility for doing most of the technical and the expert policy work in telecommunications and presenting those judgments to the FCC.

And I think we both, as I say, have more than enough to do, and the State Department I think is moving along and doing a good job in some areas where I think they should be involved, and I think our people are doing a good job. And so I see no reason to make any changes with respect to that agreement.

I think the fact that we are equals as far as that group goes is helpful to us. Before we were not, and we are trying to do the best we can to work with them because to spend too much energy and time and money fighting just does not help anybody.

So we are doing the best we can to get along with our brethren over there, and they have got some good people and we certainly have some good people. But there is more than enough for both of us to do.

Senator GOLDWATER. Well, I think we should try to strengthen your hand wherever we can. It is very difficult, as you know, to get people who are not in communications to realize the extreme importance of communications to everything we are trying to do around the world. I would say if this country, with its tremendous ability in communications and the technology involved in commu-

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[1] See p. 21.

nications, cannot do a better job than we have been doing, we are going to be in real trouble.

Let's get to some of the new satellite systems that you are going to have to play around with. Assuming the FCC approves some of the new international satellite systems, how are these companies going to get what we call landing rights abroad?

Do you think the Government should try to help them so that the President's initiative is not frustrated? And does NTIA have the resources to work on these matters?

Mr. MARKEY. In answer to your first question, yes, sir, I do think the Government has the responsibility to try to help them get those landing rights. Obviously, I think some of that responsibility lies with the State Department, but I think we at Commerce can be of some help to them, if not through NTIA, because I am not sure that we have the resources.

We may be able to do some of it, but not very much of it. I think what we will try to do is certainly encourage our foreign commercial service people, who are in many of these countries and who I have found to be quite helpful, to get interested in these issues, to work with the governments in their countries to try to get landing rights.

That is not going to be easy, as you well know. It is going to be a difficult chore, which is one reason why I have to laugh to myself a little bit when the INTELSAT people get so excited about this, because obviously just us authorizing new systems is only a tenth of the way there to getting something in place.

Getting other countries to go along with this is going to be the difficult part of it. But yes, sir, I think we should try to do everything we can to help them get landing rights and find whatever bargaining chips we can to help them. And we would be part of that and I think the foreign commercial service would be part of it, and I would hope the State Department would be part of that.

Senator GOLDWATER. I could not agree with you more, and I think you are going to need a helping hand here, probably something in writing. With the confusion that exists now and the growing use of satellites, I think this Government will have to be much more active in the field than they have ever been.

I am going to ask my staff to work with your staff to see if you can come up with some ideas, because God knows everybody who can spell the word "satellite" wants to put one up, for any reason.

I want to ask you this question, whether it comes under your complete prerogative or not. Since many of the telecommunications operations in Europe, and I might say elsewhere, are owned by the government, should our Government have to help the U.S. companies? Do you believe that or not?

Mr. MARKEY. I think certainly we should. That is what they are paying their taxes for. We should be able to help them.

One of the things that I got into a little bit earlier is the fact that we tried to help in Japan to open up the Japanese market, and I am told by the trade negotiators that having our people there who were experts in some of these areas was a big help to them.

Now, obviously Japan is not the only country in the world that we have this problem in. We have a difficult problem in Europe, as you pointed out, with the PTT's. I think we have gone just about as

far as we are going to go with respect to telecommunications in Japan and we have gone a long way. Some of the focus may shift in telecommunications to Europe in the very near future.

And I would certainly hope that our expertise would be helpful to companies that are trying to get into those markets. And as much as our resources will permit, we are going to try to help them, yes, sir.

Senator GOLDWATER. Of course, this is not directly related, but I have often said I wish there was some way we could get AT&T back into business.

Taiwan and South Korea also are very, very active in these fields. In fact, I would not be surprised if Taiwan overtook Japan in this whole telecommunications field.

Mr. MARKEY. Well, that is a very good point. The whole Asian community is growing so rapidly that we should not forget the rest of that community. China and the rest of them, their markets are going to be considerable, and we are going to be and we should be in them.

Senator GOLDWATER. NTIA is in the midst of a comprehensive review of domestic telecommunications policies, rules, and regulations. Would you briefly tell me your objective in conducting the review and what you have discovered so far?

Mr. MARKEY. Yes, sir; the reason we decided it would be a good idea to make an analysis of where we are now is that, I guess it was in 1979, NTIA looked at the common carrier area and made some recommendations with respect to the way things were proceeding at that time. Later I think it resulted in some of the legislation that the Congress—at least the Senate passed—and the House was working on when the consent decree was finalized.

Since that time, we have had events such as the *Computer II* decision by the FCC and we have had the breakup of AT&T. We decided that it would be worthwhile for us, as the agency that has some experts in the policy area, to take a look at what was happening now, how it was affecting our users and our carriers and industries.

Particularly, we wanted to look at it with respect to the trade area. As you know, the consent decree and the breakup has opened up our market to an extent where we now have many major makers of equipment in the world going into our market, and their plans are, their business plans are, to be here.

Siemens, Ericsson, all of the large telecommunications providers in the world are going to be into our market in a much larger way than they ever have been in the past. That is fine. We have made that decision and I do not think we can probably go back on it.

What we want is equal access in their markets. But we also think that we have to make sure that we are not handicapping our own people too much. We are looking very strongly at the consent decree and the new restrictions that are placed on the Bell Operating Cos., for instance, as those restrictions impact on the Bell Cos. competing with foreign companies.

That is 50 percent of our telecommunications industry, the Bell Cos. And if we are going to restrict those companies to such an extent that they are not going to be able to participate, I am not

sure that makes an awful lot of sense. So we are looking very hard at that aspect of the present situation.

We are looking at the *Computer II* decision and whether those structural separations requirements continue to make sense in a worldwide communications marketplace or whether, again, we are restricting our people to such an extent that we are putting them at a disadvantage.

So that is pretty much where we are at the moment, but we are looking at a number of other issues as well as those. We are looking at the rural situation, how rural people are going to be doing under the new setup, what is coming down the road.

We really want to try to get out ahead of the curve, so that we can provide to the Congress and to the Justice Department and to the FCC some thoughts on where we are going to be 4 or 5 years from now and the kinds of problems that we see coming.

Senator GOLDWATER. Thank you.

For the record now, you have recently completed a review of State telephone rates. I wish you would submit that to the staff for our use. Do you think the findings that you made are significant?

Mr. MARKEY. Well, I think they are significant. But again, one of the problems with doing a study like that is that some of the proceedings that we looked at are not complete. In other words, there have been requests for increases in rates and the State commissions have not acted. So we do not have all of the data. And as you know, the requests for increases seem to be coming every year or so, so it is easy for that information to get out of date.

But I think on a collective basis, on a national basis, to look at where we are headed, I think it is significant. It tends to show, of course, as you probably suspected, that rates are continuing to go up at the local level. But from the information we have at the moment, they are not skyrocketing. I would not call them skyrocketing.

For instance, we found that I think the average urban rate has gone from $12 and something to $13 and something, which is an increase, but it is not anything that people have to be outraged about.

We have also found that people around the country are very interested in making sure that there are budget plans and plans for people who have trouble paying their telephone bills, for low income people, for people who are handicapped, for the elderly; that there is a great deal of concern about those kinds of individuals, and all of us want to make sure that they continue to be able to have telephone service and stay on the system.

So I think in that respect those figures are helpful. We do not claim that they are accurate down to the penny, but I think they give us a good base of information to work from, yes.

Senator GOLDWATER. Well, of course there is a lot of interest in this area, As you might imagine, there is every indication that a number of pieces of legislation, have been introduced to require the Federal Government to offset costs, so that telephone service can be guaranteed to every household.

That is going to require a lot of study on your part and our part, too.

Senator Gorton, do you have any questions you would like to ask?

Senator GORTON. Thank you, Mr. Chairman. Just one.

I would like your justification, if you have one, for eliminating funding for the Public Telecommunications Facilities Program. Is that not basic to the success of and the future of public broadcasting? And is it not particularly difficult for most public stations to find money for these capital kinds of improvements?

Mr. MARKEY. Well, Senator, obviously it is a program that has provided some benefits, but the justification I think is that we are in a very, very tight budget situation, as you know. We cannot fund everything we would like to fund.

We cannot fund everything that are actually good programs, I do not think. And this was one area where the administration I think felt that we had done what we set out to do in the original legislation, which is extend public broadcasting to virtually every area of the country. Obviously, not everybody has public broadcasting. I think the figures are, in the television sector, that about 90-some percent are covered by public broadcasting and in the radio area, it is about 80 percent. It is a little less than that.

There are other ways, possibly, to bring public broadcasting to some of these people. If you have cable, for instance, you may be able to get public broadcasting without having a local public broadcasting facility. I have always advocated, although the cable people do not like this, that we allow telephone companies, particularly in rural areas, to provide more services, cable television type of services.

So the problem is getting down to how much money are you willing to spend to provide service to very few people? And our Inspector General looked at this issue several years ago and made the judgment that to cover the people that were remaining, that had not been covered, that we were spending—I do not recall what the figure was per individual—but a substantial amount of money.

Senator GORTON. Is not a very substantial portion of the money appropriated for this purpose used to upgrade existing systems that serve the bulk of the people in the United States, rather than to extend it to a few areas which do not have it at the present time?

Mr. MARKEY. Sir, I think more of that is happening all the time. I think our feeling was that the original purpose of the program was not to provide updating of the facilities, but to extend coverage.

Now, the Congress I think is saying to us in administering the program that you want us to pay more attention to helping the people with their existing facilities. Obviously, we are going to do what the Congress wants us to do with respect to this program. But the administration felt that this was one of those programs, in a very difficult year, where we could make the sacrifice and do away with it.

Senator GORTON. And it is the thrust of your testimony that the other four of the five NTIA basic programs are so much more important than this that they should be protected and this eliminated, rather than each sharing in a proportional cut?

Mr. MARKEY. We have cut back considerably at NTIA over this administration. We were at $16 some million back in 1980 and we are now down to $13.2 million.

Senator GORTON. I understand that. That is not the question, though. The question is that this is so much less important than the other four that it should be cut out entirely, rather than having the pain distributed among all five programs?

Mr. MARKEY. Well, let me just say this. There are certain programs at NTIA that I do not think you can cut out. Obviously, you could get along without some more than others. There are a lot of things in Government you could get along without.

And the decision was made that this public facilities program was one area where we could cut in a very difficult year, and that is what the people at OMB decided to do.

Senator GORTON. Thank you for the answer and especially the last phrase.

Thank you, Mr. Chairman.

Senator GOLDWATER. Thank you. A few years ago you had a major program that was trying to do something about illegal eavesdropping on sensitive Government communications. The press now says that this is being revived by the Defense Department. And, in view of the massive new Russian installation up on New Mexico Avenue or thereabouts, the roof of which is covered with antennas carefully camouflaged by a rather brownish-looking plastic encasement, are you going to get involved more in that work again?

Mr. MARKEY. Well, that happened to be one of those areas that we cut out almost entirely, for the benefit of Senator Gorton. But yes, sir, we will be involved. There has been a new group established called the NTISSC. That is the National Telecommunications and Information Systems Security Committee, headed by Don Latham over at the Defense Department.

Virtually all agencies are represented in some capacity on that committee. But that committee is now looking at both the telecommunications area and the information area to determine what information should be protected that we are not doing a very good job of protecting.

As a matter of fact, there is a particular policy that is now being considered by that group, that will be decided, I think it is, on May 10 when we meet again, to deal with the question how the tracking and telemetry and control operations of certain civil satellites should be possibly encrypted, for instance.

So we are looking very closely at some of those issues. I do not think NTIA will be in a position of having the same duties as we did before, but we will be involved with that committee.

There is also a danger that we could go in the other direction and try to impose too much restriction on information. By trying to protect information, sometimes you also have to spend a good deal of money. And so I think we have to be careful in the requirements that we come down with.

But yes, sir, we will be looking at that.

Senator GOLDWATER. Well, I know that is not your precise field. But with the facilities the Soviets have in this town, I think it is going to take more than just the DIA or the CIA or the rest of the family to get the job done.

I have no other questions, Mr. Markey.

I want to thank you for coming. We are going to do our very best for you. I might say, in my heart I know you are right.

Senator GOLDWATER. The meeting will be adjourned.

[The statement follows:]

STATEMENT OF DAVID J. MARKEY, ASSISTANT SECRETARY FOR COMMUNICATIONS AND INFORMATION, DEPARTMENT OF COMMERCE

Mr. Chairman and Members of the Subcommittee:

Thank you for this opportunity to very briefly review NTIA's authorization requests for fiscal years 1986 and 1987. The Administration has recommended legislation which would authorize appropriations for NTIA of $13,186,000 for fiscal year 1986, and such sums as necessary for fiscal year 1987.

MAJOR PROGRAMS

Such legislation would authorize the funding necessary to support four of NTIA's five basic programs. These five basic programs are: (1) our policy development and presentation activities; (2) Federal spectrum management; (3) communications and standards research; (4) international affairs; and (5) administering the Public Telecommunications Facilities Program or "PTFP."

The Administration's authorization request does not include funds for the PTFP. Traditionally, the PTFP has been separately authorized and funded, usually in conjunction with legislation dealing with the Corporation for Public Broadcasting. The Administration has not requested funding for the PTFP after this fiscal year.

NTIA's basic programs are discussed in considerable detail in our required annual report, which we forwarded to the Subcommittee in January. We would be pleased to submit copies of this report for the record of these hearings.

FOCUS ON INTERNATIONAL ISSUES

Prior to 1982, NTIA focused chiefly on domestic communications matters. We were major participants, for example, in efforts to enact domestic common carrier communications legislation, bills such as S. 898, which passed the Senate overwhelmingly in October 1981.

Over the past few years, however, NTIA has been increasingly involved in international communications matters. We were extensively involved, for example, in developing recommendations for President Reagan regarding new international satellite systems separate from INTELSAT. This past February we issued a comprehensive "White Paper" on this topic, together with the 14 other Executive branch agencies which are members of the Senior Interagency Group or "SIG" on International Communications and Information Policy that NTIA and the State Department co-chair.

In related areas, we have been working with the Federal Communications Commission (FCC), the State Department, and others to develop new procedures governing Comsat's participation as the U.S. Signatory in INTELSAT. We made recommendations to the FCC regarding reforms in the present international communications facilities planning process. Recently, we also asked the Commission to change its rules to allow companies and users in addition to Comsat to have "direct" or "competitive" access to INTELSAT.

Given the importance now accorded communications trade matters, NTIA experts have been working with Commerce's International Trade Administration and the Office of the U.S. Trade Representative in connection with efforts to expand U.S. marketing opportunities in Japan. We have a proposed protocol or agreement pending with the Chinese Ministry of Posts and Telecommunications that we hope to sign later this year. We worked on developing U.S. recommendations for the International Telecommunications Union's Maitland Commission, which has advanced various proposals to promote communications development throughout the Third World. And we have also continued our active participation in the important technical training programs of the U.S. Telecommunications Training Institute or "USTTI."

DOMESTIC POLICY REVIEW

Earlier this year, we commenced a review of U.S. domestic telecommunications policies with a view toward determining what approaches the Government should take over the next five years. We will be looking at whether some of the rules and restrictions that are placed on the industry today make sense from a long-term standpoint. In this regard, we have asked industry, consumer groups, State and local officials, and others to give us their recommendations. We expect to publish an analysis sometime this summer.

One of our chief interests in conducting this review is to determine what changes should be made that would help our industry compete more effectively both at home and abroad. Obviously, the U.S. trade situation in the telecommunications and related sectors is not good. In 1982, for example, we had a $5.1 billion trade surplus in the "electronics-based products" category, which includes telecommunications. But in 1984, we had a trade deficit of about $6.8 billion in this category. In other words, we had nearly a $12 billion turn-around in just two years.

Some of this is due to the strength of the dollar, and to the fact that too many communications markets overseas still remain largely closed to American firms. But part of the problem may also be due to the restrictions which we continue to impose through the ECC or under the AT&T consent decree on several of our leading communications firms.

Prior to divestiture, the regional Bell companies did not participate in foreign trade. All export operations were handled by AT&T. Since the decree, it has become at least possible for the regional firms to engage in foreign trade. But they remain subject to special regulatory requirements and are restricted in what services they can offer even overseas.

The primary focus of Federal communications policies for the past five to ten years has been on preventing various anticompetitive practices and developments. We have spent a lot of time and effort trying to devise ways to prevent hypothetical problems. But there does not always seem to have been enough attention paid to developing affirmative policies and approaches.

There is a need to pay more attention to some of the actual needs and interests of communications users. We sometimes seem to have concentrated so much on trying to balance among competing corporations that we have lost sight of users' interests. Celluiar mobile radio is a classic example of how this process can work unless we are very careful. There, the FCC for some 12 years debated how best to ensure that no one group would have an "unfair" advantage in this new field. Meanwhile, however, U.S. customers could not buy these new services. We essentially put the marketplace on hold while we debated the terms and conditions under which companies would be allowed to compete.

Under Chairman Fowler, the FCC has certainly become more user oriented, and more concerned with whether service is available, not just who gets to provide it. This is a very positive development. We still think, however, that more needs to be done in this regard, and this will be a major emphasis of our study.

CONCLUSION

Over the next few years, we will continue our efforts in both the domestic and international communications field. In the past, NTIA and the Subcommittee have enjoyed a close and cooperative working relationship, and I hope that will continue.

We would particularly welcome your advice regarding the matters under review as part of our domestic study. We believe this is an important effort and would greatly appreciate the Subcommittee's support and assistance.

[Whereupon, at 9:45 a.m., the subcommittee was adjourned.]

[The following information was subsequently received for the record:]

NTIA Comments Submitted to Mr. William Ellinghaus in Preparation for the August 1-3 Meeting of the Maitland Commission, Munich, West Germany

INTRODUCTION

The Independent Commission on Worldwide Telecommunications Development was established at the International Telecommunication Union's 1982 Plenipotentiary Conference in Nairobi. Chaired by Sir Donald Maitland, this Commission is composed of leading telecommunications experts from around the world. It is mandated to examine the many issues of telecommunications development and to recommend methods which would stimulate telecommunications development internationally.

To assist the Maitland Commission's efforts, the National Telecommunications and Information Administration of the U.S. Department of Commerce, with the cooperation of leading telecommunications firms and interested Government agencies, has prepared the following comments. These comments provide a checklist of activities and concepts that should be addressed while forming a comprehenisve solution to the problems of telecommunications underdevelopment.

1. Trade and Investment

It is in the mutual interests of the developing world and the telecommunications industry to create an environment which stimulates trade and investment in telecommunications goods and services worldwide.

During the 1970s the amount of exports to the developing world expanded rapidly. While exports of telecommunications equipment within OECD countries increased by a factor of 3.5 from 1970 to 1978, exports of this equipment from the OECD countries to oil-exporting developing countries increased by a factor of 9, and exports to the other developing countries (primarily newly industrializing countries) increased by a factor of 4.5. Although this rapid growth pattern is expected to slow during the 1980s, especially as purchases in the oil-exporting countries decline, growth in sales of telecommunication goods and services in such areas as developing Asia and Latin America will continue. This growth is due in large part to three factors:

Import substitution policies have not been a significant factor in most developing countries (exceptions exist among some newly industrializing countries);

Existing networks in developing countries are typically very limited and are obsolete legacies of colonial rule, creating substantial replacement opportunities and posing, at least initially, fewer network compatibility problems; and

The shift to digital switching technology has required a considerable research and development effort on the part of telecommunications manufacturers causing them to distribute the investment cost over international markets where demand for a variety of digital equipment is high.

Multinational corporations selling telecommunications equipment are engaged in a variety of commercial arrangements with developing countries. Traditionally, direct private foreign investment in developing countries has been typified by majority-owned or wholly-owned subsidiary arrangements. This has been changing in recent years. The "new" forms of investment include joint ventures, turnkey operations, interntional sub-contracting, licensing agreements, and management contracts.

Another area of increasing importance is consultancy services provided by private industry to developing countries:

(1) *Training:* The private sector provides needed technical assistance through training programs in installation, operation, and maintenance of telecommunications equipment.

The United States Telecommunications Training Institute (USTTI) is an example of technical cooperation among private indusry, the government, and international organizations for the purpose of sharing advances in telecommunications technology with developing countries. Over 200 participants benefitted from tuition-free courses offered during the 1983-1984 training year by private corporations and government agencies. The ITU, through its Fellows Program, was one of several international organizations providing funding in support of trainees. The USTTI could be used by other countries as a model for their own training programs.

Other training approaches have also proven successful. For example, employees of multinational communications corporations in developing countries have spent time working at headquarters' locations. Such experience gives the employees from developing countries a broader perspective and understanding of telecommunications and related management activities.

(ii) *Specifications:* One telecommunications firm offered the following, "It is our view that the single most important need in carrying out the work of the Commission and implementing any recommendation is an environment in which industry is encouraged by the developing countries to participate with them in all aspects of telecommunications development from the very initial requirements and planning stages through to actual implementation and evaluation." For example, it is necessary to explore ways to involve manufacturers in determining specifications from the outset of a telecommunication project. Often there are problems with technical needs assessments and the accuracy of specifications drawn up by developing countries. Specific local environmental conditions may not be taken into account when determining specifications of complex equipment.

In addition, developing countries often encounter problems of incompatible equipment which has been sourced from a variety of vendors and for a variety of reasons:

Equipment is donated as a part of an aid package;

Equipment is chosen as a result of concessionary financing arrangements; and

Equipment is chosen because it is state-of-the-art technology.

Strategies for the adaptation of differing equipment need to be refined thus enabling developing countries to more fully take advantage of their current equipment while facilitating the introduction of new equipment for the modernization of their networks.

Regardless of the commercial or consultancy arrangement chosen, it is essential, as one major telecommunications firm stated, that developing countries "create an environment which encourages private sector investments." The firm's response then went on to say, "such an environment will act as a strong motivation for industry participation and assistance in enhancing the development of telecommunications."

This can be done by preventing or, if necessary, removing trade and manufacturing restrictions and promoting import activity. Some developing countries, especially the more advanced newly industrializing ones, once they have reached a critical mass in their telecommunications infrastructure have resorted to import substitution policies which restrict trade and investment. Restrictive tariffs and quotas and government procurement policies that exclude foreign suppliers or reduce competition to a preferred supplier are examples of these policies. These policies not only discourage capital investment, but they also restrict the transfer of goods, expertise, and technology vital to development.

2. Administrative Reform

Reform of local telecommunication administrations will encourage investment in a developing country's telecommunications network.

Major deficiencies in the organization and management of telecommunication systems exist among the administrations in developing countries. These deficiencies often lead to unreliable service, lost revenues, and obsolete networks. Ineffective management can discourage investment and trade in telecommunication goods and services.

In recent years, investment in telecommunication facilities in developing countries has been approximately 0.3 percent of GDP. Since the mid-1970s there has been some indication of an upward trend, even excluding the substantial investments initiated in many of the oil-exporting countries. The level of investment, nonetheless, in telecommunications in non-OPEC developing countries is less than half the average annual investment in the more developed countries.

All evidence indicates that the reason for this underinvestment is neither found in a lack of consumer demand nor in an inadequate return on investment for the telecommunication administrations. Among the more serious reasons for underinvestment (some endemic to economic underdevelopment) are the following:

The low priority accorded telecommunications development in the overall development strategy;

A view that investment in telecommunication facilities directly benefits only the privileged portion of a developing country's population;

Tariff policies which in the short run do not promote an efficient allocation of telecommunication resources;

The lack of foreign exchange to import telecommunications equipment;

A lack of technically qualified managers and personnel to guide the development of the network; and

Organizational problems both within and exogenous to the telecommunication administrations.

A brief examination of this last point reveals both the nature of the problem and possible solutions. Many developing country telecommunication administrations suffer from insufficient autonomy from governmental authority and political exigencies. Too often local administrations' decisions are constrained by government approval and guidance of day-to-day technical, procurement, and expenditure decisions.

What is needed is a rationalization of decision-making procedures which would expedite investment in telecommunications development programs. This approach would involve a number of steps: (1) introducing management-oriented and commercial accounting systems; (2) periodically adjusting tariffs to levels which reflect consumer demand and which account for general economic conditions such as inflation; (3) assigning bill collecting authority over all users including government subscrib-

ers; (4) ensuring that internally generated funds are available for investment in telecommunications development programs; and, (5) giving the telecommunications administration authority to establish wages, salaries, and benefits at competitive levels with other employers therefore enabling it to attract and retain qualified personnel at all levels.

3. Rural Telecommunications

There is growing evidence that investment in rural telecommunications leads to widespread economic benefits.

Developing countries tend to underinvest in telecommunications for rural areas, focusing rather on providing urban and international facilities. Recent studies such as those reviewed in the ITU/OECD study, Telecommunications Development, show that investments in telecommunications for rural and remote areas can be profitable and can contribute significantly to economic and social growth. Studies also show that the failure to invest in rural areas carries its own economic costs. When such indirect benefits of rural telecommunications as a more efficient rural economy, higher employment, and an expanded GDP are included with the financial returns such services as calling charges and equipment rental fees, the costs of rural services are covered many times over.

Contrary to what many planners assume, people in rural areas have proven that they are willing to pay for telecommunication services. The telephone serves as a substitute for travel in rural areas, and the cost of a call can be much less than the costs in time and transportation necessary to gather the same information.

Many of the problems which have plagued the development of a rural telecommunications network may be alleviated by technological advances. Technologies such as electronic switching and satellite transmission using small low-powered earth stations make low-cost high quality rural telecommunications a real possibility by minimizing problems of installation, operation, and maintenance. Meeting thin-route telephony requirements will necessitate the creative adaptation of existing technologies and the development of new ones. The telecommunications industry should be encouraged to see these rural markets as trade opportunities for telecommunications equipment and services.

4. Regional Projects

A strategy of telecommunications development should emphasize regional projects as a complement to development programs undertaken by individual countries.

Some of the problems an individual country faces in improving its telecommunications infrastructure are shared by other developing countries and may best be addressed on a regional basis. The private sector recognized the importance of regional development as is evidenced by the comments of leading telecommunications firm that noted that there "is a need to define requirements on both regional and country levels. This necessitates the undertaking of a requirements study which should include participation from industry to develop short and long term plans for improvement."

Organizations in each region of the world are involved in telecommunications development. Developing countries should maximize the effectiveness of regional organizations by encouraging cooperation among a region's financial institutions, business interests and development organizations. Such an approach enables countries to pool resources and expertise to address their mutual problems. In addition, the expanded scope of their activities is well suited to private sector investment since manufacturers can take advantage of economies of scale while tailoring goods and services to developing country requirements.

5. The Role on International Organizations

The activities of international organizations involved in telecommunications development should be coordinated.

The operations of existing international institutions with interests in telecommunications development should be analyzed to locate areas for improved performance and greater coordination among institutions. No new international organization for the purpose of fostering telecommunications development is needed. Rather, existing international organizations should direct their attention toward identifying specific projects which will:

Facilitate commercial interaction between developing countries and the private sector;

Enhance regional development efforts; and

Encourage innovative applications of telecommunications technologies through pilot projects and demonstrations.

Two examples of such projects follow:

(i) *Business Information Exchange:* The Caribbean Basin Business Information Center and Information Network were established by the United States Department of Commerce to facilitate the exchange of information on investment and trade between countries in the Caribbean Basin and U.S. suppliers. Through it, Caribbean Basin countries learn about firms interested in investing in their countries, and exporters learn about market opportunities, business practices, and government policies in these countries.

(ii) *Technology catalog:* A rapidly expanding range of telecommunication goods and services is available in today's marketplace. Developing countries planning the growth of their telecommunications infrastructure need to understand the characteristics of the various products in order to choose which technologies would best meet particular needs. A catalog containing an analysis of existing technologies would enable planners to understand what choices are available so the benefits of a particular technology can be balanced against the costs and benefits of alternative technologies.

It should also be noted that the financing of telecommunications development projects should continue to be undertaken by existing international funding agencies, such as the World Bank and the UNDP, and through voluntary assistance programs. Alternative funding mechanisms for the administration of international surtaxes or subsidies are not needed.

CONCLUSION

A modern telecommunications infrastructure depends upon the existence of two basic conditions: the universal availability of telecommunications services at a cost acceptable to the user, and the accessibility of technology to reduce the costs, extend the range, and improve the reliability of telecommunications services. In many countries these conditions are not present.

The amount of investment required to achieve a modern telecommunications infrastructure clearly exceeds the resources available through international public assistance. The necessary investment, however, represents only a small portion of the growing revenues coming from the sale of telecommunications equipment worldwide each year. Our analysis indicates that the first step in fulfilling the goal of distributing advanced telecommunications technology worldwide is to create an attractive trade and investment environment. This will, in turn, encourage private sector investment in the developing world.

Experience, furthermore, shows that the development process has been advanced most successfully through specific projects that address discrete problems. As one private sector respondent stated, "The key to success is to bring developed and developing countries together in joint ventures that provide opportunity for mutual gains." To achieve such a unified approach, the private sector and developing countries need to be both flexible and innovative.

APPENDIX

CRITIQUE OF THE WORLDTEL PROPOSAL

As part of our contribution to the efforts of the Maitland Commission, we have prepared this response to the proposal to establish a WORLDTEL organization. Our analysis is based on a review of the documents presented at the Commission's Leeds Castle meeting in May 1984 as well as on the responses we received from US Government agencies interested in telecommunications development.

The WORLDTEL proposal brings up many of the important issues of financing and managing telecommunications development. It also identifies the need for training, consultancy, and other forms of assistance which must be undertaken in order to provide developing countries with the requisite resources to enhance their telecommunications infrastructure. While obviously the goal of international telecommunications development is meritorious, the means to achieve it proposed by the author of WORLDTEL are often inappropriate and unrealistic.

Our analysis indicates that no new international organization is required, but, instead, administrative reform and additional activities within existing institutions is what is presently required. The following discusses three factors which challenge the tenets of the WORLDTEL proposal by contrasting it with current international practices and trends.

1. *The private sector is currently involved in a variety of telecommunications activities in developing countries and has no incentive to be involved in an arrangement like that contained in the WORLDTEL proposal.*

The success of WORLDTEL is predicated on participation by the world's telecommunications vendors and manufacturers, however WORLDTEL offers few incentives to these companies to join in such an international organization. The WORLDTEL proposal shows little understanding of current forces driving the international marketplace in telecommunications goods and services and the advantages these market forces offer for the needed transfer of technology to the developing world.

The telecommunications industry is currently successful in finding markets for its goods and services in developing countries and does not require an international organization constituted in the manner of Worldtel as an intermediary. During the 1970s the amount of exports to the developing world expanded rapidly. While exports of telecommunications equipment within OECD countries increased by a factor of 3.5 from 1970 to 1978, exports of this equipment from the OECD countries to oil-exporting developing countries increased by a factor of 9, and exports to the other developing countries (primarily newly industrializing countries) increased by a factor of 4.5. Although this rapid growth pattern is expected to slow during the 1980s, especially as purchases in the oil-exporting countries decline, growth in such areas as developing Asia and Latin America will continue. Thus growth is due in large part to three factors.

Import substitution policies have not been a significant factor in most developing countries (exceptions exist in such newly-industrializing countries as Brazil, Korea, and Argentina which are actively pursuing import substitution policies);

Existing networks in developing countries are typically very limited and are obsolete legacies of colonial rule, creating substantial replacement opportunities and posing, at least initially, fewer network compatibility problems; and

The shift to digital switching technology has required a considerable research and development effort on the part of telecommunications manufacturers compelling them to distribute the investment cost over international markets where demand for a variety of digital equipment is high.

Not only does the private sector ultimately stand to gain from a reliance on market forces, but so do the developing countries. Companies from such countries as France, Japan, Sweden, Great Britain, Italy, the Netherlands, and the United States are competing for the telecommunications markets of the developing world. Competition among these vendors works to the advantage of the developing world which can benefit from the latest technologies often with concessionary financing. A proposal such as that of WORLDTEL could substantially lessen or simply eliminate these benefits by replacing international competition with an international cartel composed of telecommunications equipment manufacturers and vendors.

WORLDTEL, furthermore, fails to provide for such basic safeguards as copyrights, patents, and trademarks covering telecommunications products resulting from unique research and development projects. Multinational corporations selling telecommunications equipment are engaged currently in joint ventures with developing countries that assist telecommunications and economic development while protecting the corporations' intellectual property rights. Innovative measures are needed which would provide new benefits to developing countries through such traditional joint ventures as licensing agreements, international subcontracting, and turnkey operations. A new international organization for telecommunications development which would appropriate "financial and executive controls" to itself would offer little inducement to the private sector to participate and would not increase developing countries' self-sufficiency. As such, it is not needed.

2. *Administrative reform of local telecommunication administrations and not a new international organization will be a greater inducement to investment in a developing country's telecommunications network.*

Major deficiencies in the organization and management of telecommunication systems exist among the administrations in developing countries. These deficiencies often lead to unreliable service, lost revenues, and obsolete networks. Ineffective management can discourage investment and trade in telecommunications goods and services. The solution to these problems does not rest in a new international organization but in local administrative reform.

In recent years, investment in telecommunication facilities in developing countries has been approximately 0.3 percent of GDP. Since the mid-1970s there has been some indication of an upward trend, even excluding the substantial investments initiated in many of the oil-exporting countries. The level of investment in telecommunications in non-OPEC developing countries is nonetheless less than half the average annual investment in the more developed countries.

All evidence indicates that the reason for this underinvestment is neither found in a lack of consumer demand nor in an inadequate return on investment for the telecommunication administrations. Among the more serious reasons for underinvestment (some endemic to economic underdevelopment) are the following:

A view that investment in telecommunication facilities directly benefits only the privileged portion of a developing country's population;

Tariff policies which in the short run do not promote an efficient allocation of telecommunication resources;

The lack of foreign exchange to import telecommunications equipment;

A lack of technically qualified managers and personnel to guide the development of the network; and

Organizational problems both within and exogenous to the telecommunication administrations.

The WORLDTEL plan mentions many of the underlying causes for insufficient investment in the telecommunications development when it considers the role of financing, training, and management within the proposed international organization. Local self-sufficiency, however, and not dependence on a new international institution is the best course for telecommunications development in the developing world. More attention, therefore, should be paid to administrative reform as a first step in attracting needed investment for telecommunications development.

A brief examination of typical organizational problem both within and exogenous to telecommunication administrations reveals both the nature of the problems and possible solutions. Many developing country telecommunication administrations suffer from insufficient autonomy from governmental authority and political exigencies. Too often local administrations' decisions are constrained by government approval and guidance of day-to-day technical, procurement, and expenditure decisions. What is needed is a rationalization of government decision-making procedures which would expedite investment in telecommunications development programs. This approach would involve a number of steps: (1) introducing management-oriented and commercial accounting systems; (2) periodically adjusting tariffs to levels which reflect consumer demand and which account for general economic conditions such as inflation; (3) assigning bill collecting authority over all users including government subscribers; (4) ensuring that internally generated funds are available for investment in telecommunications development program; and, (5) giving the telecommunications administration authority to establish wages, salaries, and benefits at competitive levels with other employers therefore enabling it to attract and retain qualified personnel at all levels.

3. *Existing international organizations are already involved in many of the activities being proposed for WORLDTEL.*

Activities and functions currently accomplished by existing international organizations would be duplicated by WORLDTEL. The WORLDTEL proposal states that since its new international organization represents "the majority of the countries of the world as well as the manufacturers," it "can decide on standards and implement them over a wide area." This ignores the traditional role of setting technical standards performed by such international organizations as the ITU. Since 1965 the ITU has been the sole international forum for regulation of international telecommunications. Within the ITU, the CCITT is the permanent organ responsible for the analysis of data transmission, preparation of technical and operational reports and formulation of recommendations relating to equipment, system standardization and tariff principles. These activities have served to assure that the development of communication systems or parts of systems were accomplished with a view of future international interconnection of such systems.

There is no evidence that the current arrangement requires a new international body to perform the functions of the ITU. The history of the ITU has indicated that it has acted to assure three overlapping interests:

The protection of the interests of its member states;

The protection of the interests of the telecommunication user, whether the user is from the government, business or commercial sector or is an individual; and

The protection of the investments and the revenue earning capacity of the world's telecommunication administrations.

In addition to duplicating activities, WORLDTEL would add an unnecessary intermediary function to telecommunications development by international organizations. The proposal suggests, "the world's financial institutions like IDA and IBRD can aid the development of the most backward areas by channelling their aids through WORLDTEL." International lending institutions do not need an organization to channel their funds for them. Not only would this create another layer of bureaucracy between the North and the South, but it also fails to address the real

problem involved with the lending institutions. The problem is not where to channel the funds available for telecommunications projects, but rather how to increase the amount of funds.

Although the proportion of total assistance provided by these organizations that is currently devoted to telecommunication projects is relatively small, this situation could be changed. Developing countries commonly do not assign a high priority to telecommunications development within their overall development strategies. If development planners were to place greater emphasis on telecommunications development as an integral part of all development efforts, international lending institutions would be more likely to provide greater assistance for telecommunications projects. The answer lies in changing the course of existing institutions and not in creating new ones.

Deferred PTFP Applications, Fiscal Year 1985

Geographic Area 1—CT, DC, DE, FL, GA, IN, KY, MA, MD, ME, MI, NC, NH, NJ, NY, OH, PA, RI, SC, VA, VT, WV

Area Summary

Money in priorities 1A and 1B	2,238,977
Money in priorities 2 and 4	5,944,318
Money in other priorities	3,670,609
Total money in area 1	11,853,904
Total money in all areas	26,539,063

File No	Organization	City
CT		
Priority other: CTN 55141	Connecticut Ed. Telecomm. Corp	Hartford.
FL		
Priorities 1A and 1B: CRB 55186	Indian River Community College	Fort Pierce.
Priorities 2 and 4:		
CRB 55129	University of South Florida	Tampa.
CTB 55128	University of South Florida	Do.
CTB 55349	School Board of Dade County	Miami.
Priority other:		
PRTB 55105	Sch. Board of Broward County	Fort Lauderdale.
CTB 55131	University of South Florida	Tampa.
CRB 55129	University of South Florida	Do.
CRTN 55055	State of Florida	Tallahassee.
GA		
Priority other: CTB 55386	Atlanta Board of Education	Atlanta.
IN		
Priorities 1A and 1B: CTB 55338	Northwest IN Pub. Brdcstg., Inc.	Highland.
Priorities 2 and 4:		
CRB 55008	Trustees of Indiana University	Bloomington.
CRB 55397	Ball State University	Muncie.
KY		
Priority other:		
CRB 55015	Black American Comm., Inc.	Frankfort.
CTB 55332	Western Kentucky University	Bowling Green.
ME		
Priorities 2 and 4: CTB 55051	University of Maine	Orono.
Priority other: CTN 55286	University of Southern Maine	Portland.
MI		
Priorities 1A and 1B:		
CRB 55289	Central MI Univ. Pub. Brdcstg.	Mount Pleasant.
CRB 55411	Delta College	University Center.
Priorities 2 and 4:		
CTB 55093	Grand Valley State College	Allendale.
CTB 55101	Board of Trustees, MI St. Univ.	East Lansing.

File No.	Organization	City
CRB 55125	Board of Control, N. MI Univ.	Marquette.
NJ		
Priorities 2 and 4:		
CRB 55072	Mercer County Community College	Trenton.
CTB 55363	NJ Public Broadcasting Auth.	Do.
Priority other: CTB 55083	State of New Jersey	Do.
NY		
Priorities 2 and 4:		
CRTB 55197	Rochester Area Ed. TV, Inc.	Rochester.
CTB 55233	Dutchess Community College	Poughkeepsie.
Priority other:		
CRB 55205	Rochester Radio Reading Service	Rochester.
CRB 55387	UHURU Communications, Inc.	Binghamton.
OH		
Priorities 1A and 1B: CTB 55016	Bowling Green State University	Bowling Green.
Priorities 2 and 4:		
CTB 55016	Bowling Green State University	Do.
CRB 55259	Toledo Board of Education	Toledo.
PA		
Priorities 1A and 1B: CRB 55187	NE Pennsylvania Ed. TV Assoc.	Pittston.
Priorities 2 and 4: CTB 55276	Metropolitan Pitts. Pub. Brdcstg.	Pittsburgh.
VA		
Priority other: PTN 55183	Northern Virginia Comm. College	Annandale.
VT		
Priorities 2 and 4: CTB 55418	U. of Vermont, Agricultural Coll.	Winooski.

GEOGRAPHIC AREA 2—AL, AR, IA, IL, KS, LA, MN, MO, MS, ND, NE, OK, SD, TN, TX, WI

Area Summary

Money in priorities 1A and 1B	$7,305,269
Money in priorities 2 and 4	3,136,875
Money in other priorities	1,204,210
Total money in area 2	11,646,354
Total money in all areas	26,539,063

File No.	Organization	City
AL		
Priorities 1A and 1B: CRB 55012	Jefferson Davis St. Jr. College	Brewton.
Priorities 2 and 4: CTB 55037	Alabama Ed. TV Commission	Birmingham.
Priority other: PRTB 55281	Alabama Center for Higher Educ.	Do.
IA		
Priority other:		
CTN 55039	Iowa Lakes Community College	Estherville.
CRB 554098	Oakhill-Jackson Econ. Devel. Corp.	Cedar Rapids.
IL		
Priorities 2 and 4:		
CTB 55261	Chicago Educational TV Assoc.	Chicago.
CRB 55283	College of Dupage	Glen Ellyn.
KS		
Priorities 1A and 1B:		
CTB 55241	Smoky Hills Public TV	Bunker Hill.
CTB 55313	Washburn University of Topeka	Topeka.
Priorities 2 and 4: CTB 55313	Washburn University of Topeka	Do.
MN		
Priorities 2 and 4: CRB 55322	Minnesota Public Radio, Inc.	St. Paul.
Priority other: CRB 55322	Minnesota Public Radio, Inc.	Do.

File No.	Organization	City
MO		
Priorities 1A and 1B:		
CTB 55035	Public Television 19, Inc.	Kansas City.
CRB 55091	Southern Missouri State Univ.	Springfield.
Priority other: CRB 55272	Mid-Coast Radio Project, Inc.	Kansas City.
ND		
Priorities 2 and 4: CTB 55047	Prairie Public Broadcasting, Inc.	Fargo.
NE		
Priorities 2 and 4:		
CTB 55147	University of Nebraska	Lincoln.
CRB 55319	University of Nebraska at Omaha	Omaha.
Priority other: CRB 55235	Sunrise Communications, Inc.	Lincoln.
OK		
Priority other: CTB 55003	Rogers State College	Claremore.
TX		
Priorities 1A and 1B:		
CTB 55006	Denton Ch. Two Foundation Inc.	Denton.
CTB 55020	Pub. Comm. Found. for North TX	Dallas.
CRB 55253	South Texas Public Brdcstg. Sys.	Corpus Christi.
CTB 55273	Amarillo Junior College Dist.	Amarillo.
CRB 55296	Navarro College	Corsicana.
WI		
Priorities 1A and 1B: CTB 55182	State of Wisconsin Ed. Comm. Bd.	Madison.

GEOGRAPHIC AREA 3—AZ, CO, ID, MT, NM, UT

Area Summary

Money in priorities 1A and 1B	$454,481
Money in priorities 2 and 4	283,824
Money in other priorities	292,851
Total money in area 3	1,031,156
Total money in all areas	26,539,063

File No.	Organization	City
AZ		
Priorities 2 and 4:		
CTB 55063	University of Arizona	Tucson.
CRB 55384	Found. for Creative Broadcasting	Do.
Priority other: CTB 55063	University of Arizona	Do.
CO		
Priorities 1A and 1B:		
CRB 55017	Public Brdcstg. of Colorado, Inc.	Denver.
CRB 55422	North Fork Valley Pub. Radio, Inc.	Paonia.
Priorities 2 and 4: CRB 55017	Public Brdcstg. of Colorado, Inc.	Denver.
MT		
Priorities 1A and 1B:		
CTN 55225	Laurel Public Television, Inc.	Laurel.
CTB 55227	Forsyth Comm. Public TV, Inc.	Forsyth.
CTN 55213	Whitehall Low Power TV, Inc.	Whitehall.
CTB 55403	Bitterroot Valley Public TV	Hamilton.
CTB 55416	Dull Knife Memorial College	Lame Deer.
Priority other: CTB 55416	Dull Knife Memorial College	Do.
NM		
Priorities 1A and 1B: CTB 55099	Regents of the Univ. of NM	Albuquerque.

GEOGRAPHIC AREA 4—CA, NV, OR, WA

Area Summary

Money in priorities 1A and 1B	$698,055
Money in priorities 2 and 4	9,600
Money in other priorities	334,379
Total money in area 4	1,042,034
Total money in all areas	26,539,063

File No.	Organization	City
CA		
Priority other:		
CRB 55164	KXOL, c/o Marcus A. Smith	Chico.
CTN 55357	San Diego County Office of Educ.	San Diego.
NV		
Priorities 1A and 1B: CTB 55020	Lyon County Board of Comms.	Yerington.
OR		
Priorities 1A and 1B: CTB 55295	Oregon Public Broadcasting	Portland.
Priority other:		
CTN 55216	Lane Community College	Eugene.
CTN 55294	Oregon Public Broadcasting	Portland.
WA		
Priorities 1A and 1B: CTB 55251	Washington State University	Pullman.
Priorities 2 and 4: CTB 55251	Washington State University	Do.
Priority other: CTB 55251	Washington State University	Do.

GEOGRAPHIC AREA 5—AK, HI

Applications reactivated from fiscal year 1984.

GEOGRAPHIC AREA 6—AQ, GQ, NQ, RQ, VQ (AMERICAN SAMOA, GUAM, TRUST TERRITORIES, PUERTO RICO, VIRGIN ISLANDS)

Area Summary

Money in priorities 1A and 1B	
Money in priorities 2 and 4	
Money in other priorities	64,715
Total money in area 6	64,715
Total money in all areas	26,539,063

File No.	Organization	City
RQ		
Priority other: CRB 55263	Arecido Tech. Univ. College	Arecido.

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